



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,712	07/03/2003	Yoshifumi Kato	5000-5112	5007
27123	7590	05/04/2005	EXAMINER	
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			VU, PHU	
			ART UNIT	PAPER NUMBER
			2871	

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center"><b>Office Action Summary</b></p>	<b>Application No.</b> 10/613,712	<b>Applicant(s)</b> KATO ET AL	
	<b>Examiner</b> Phu Vu	<b>Art Unit</b> 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 February 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. It is hereby acknowledged that the following papers have been received and placed of record in the file: Remarks (filed 2/18/05) and Amendment (filed 2/18/05)
2. Claims 1-18 are presented for examination.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in the prior office action.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-5, 7-16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leibowitz U.S. Patent No. 4500173, Yokoyama et. al US patent No. 6507379, Chae U.S. Patent No. 6819368, and Okada U.S. Patent No. 6788361.**

**Regarding claim 1**, Leibowitz teaches a lighting system, comprising: a light emitting element (fig. 3 element 26), wherein the light emitting element has a first surface and a second surface, wherein the first and second surfaces are on opposite sides of the light emitting element, and wherein the light emitting element contains an electroluminescent material; a first electrode located on the first surface (fig. 3 element 24), wherein the first electrode is of a light transmittance type; a second electrode (fig. 3

Art Unit: 2871

element 26) located on the second surface, wherein, when a voltage is applied across the first electrode and the second electrode, the entire light emitting element emits light.

Leibowitz fails to teach the electroluminescent material having a red emitting layer, a blue emitting layer and a green emitting layer and a substrate on which the lighting element is formed. Leibowitz also fails to teach a passivation film located on the first electrode, wherein the passivation film is of a light transmittance type and covers the entire surface of the first electrode that faces away from the light emitting element; and a light outputting surface located on the passivation film, wherein light emitted by the light emitting element is outputted from the light outputting surface.

Yokoyama teaches the electroluminescent material, having a red emitting layer (fig. 2 leement 104), a blue emitting layer (fig. 2 element 102), and a green emitting layer (fig. 2 element 103), that emits white light through equal summation of the primary colors, which can produce bright images using a lower voltage (see column 1 lines 60-65). Chae teaches a passivation layer located on the electrode to provide insulation (see column 2 lines 18-30).

Okada teaches a lower substrate below the second electrode to serve as a protective layer. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to use an electroluminescent layer having a red emitting layer, a blue emitting layer, and a green emitting layer that emits white light through an equal summation of the primary colors to produce bright images using a lower voltage. Also, it would have been obvious to provide an insulation layer on the electrode to provide

Art Unit: 2871

insulation and also it would have been obvious to one of ordinary skill in the art to use a lower substrate to provide additional protection to the EL layer.

**Regarding claim 8**, claim 8 is identical to claim 1, with the exception of a display comprising a backlighting unit listing all the features found in claim 1. The primary reference teaches a display, therefore claim 8 is rejected on the same grounds as claim 1.

**Regarding claims 2 and 11**, the lighting light emitting element is a thin layer, which can be considered a sheet. The word sheet implies no additional structure, therefore this limitation is considered met by the reference.

**Regarding claims 3 and 14**, the primary reference teaches a reflecting portion, wherein the reflecting portion faces the second surface and reflects light that reaches the reflecting portion.

**Regarding claim 4 and 15**, the reference teaches the second electrode (element 26) functioning as a reflecting portion as the second electrode is a reflective electrode

**Regarding claims 5 and 16**, the electroluminescent material of the primary reference is an organic material.

**Regarding claims 7 and 18**, it conventional in the art to use passivation film of silicon nitride. Additionally Chae as cited in the rejection of claim 1 teaches a passivation layer made of silicon nitride (column 2 lines 18-30). Conventionality has associated benefits of lower costs, and proven effectiveness. Therefore, at the time of

the invention it would have been obvious to one of ordinary skill in the art to use a passivation film of silicon nitride to gain benefits of conventionality.

**Regarding claim 9**, the primary reference teaches a liquid crystal layer (fig. 3 element 16), which comprises a plurality of liquid crystal elements.

**Regarding claim 10**, the primary reference teaches the display unit as a semi-transmissive liquid crystal unit as the display has a reflective layer and a backlighting unit.

**Regarding claim 12**, the reference teaches the display unit is located on the light-outputting surface.

**Regarding claim 13**, the backlighting unit when modified with the Chae reference as in claim 1 or 8, would produce a display unit brought into intimate contact with the passivation film.

**Claims 6 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leibowitz, Yokoyama, Chae and Okada as applied to claims 1 or 8 above and in view of Komatsu et. al. US Patent No. 6791260.** The references teach all the limitations of claims 6 and 17 except an inorganic electroluminescent layer. Komatsu discloses inorganic electroluminescent layers as known or conventional in commercial application (see column 1 lines 15-20). Conventionality has associated benefits of lower costs, and proven effectiveness. Therefore, at the time of the invention it would have been obvious to one of ordinary skill in the art to use an inorganic

electroluminescent layer to gain properties associated with conventionality such as lower costs and proven effectiveness.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

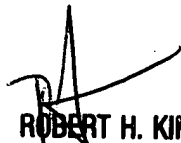
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phu Vu whose telephone number is (571)-272-1562. The examiner can normally be reached on 8AM-5PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571)-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2871

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phu Vu  
Examiner  
AU 2871



**ROBERT H. KIM**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2800**